

Egyptian pioneer school

Discover

Primary Three

Second Term



Name:.....

Class :

Theme 3: how the world works out

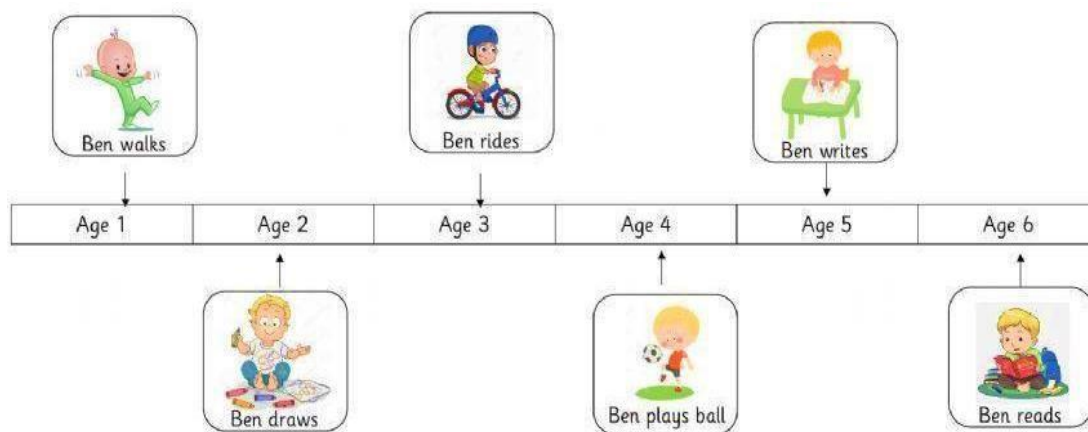
Chapter 1

Lesson 1: parents and offspring

Origin: is used to describe the source or cause of something.

as the parents are the origin of many traits we have such as eye color, hair color, skin color,.....

Timeline: shows important events in order over a period of time.



Inherited traits: are passed from parents to their babies or offspring.

Ex. hair color – mouth shape – nose shape.

Not Inherited traits: are not passed from parents to their babies or offspring but learned from life

Ex. reading – writing – riding bicycle.

- Parents pass on traits to their offspring to help them survive.

Ex. zebras have stripes on their bodies as inherited traits which confuse bugs and avoid being bitten and getting sick.

Ex. cactus has thorns to help cactus not to be eaten by animals.



Lesson 2: all about blubber

- Adaptation of animals and plants is a slow process that may take hundreds or thousands of years Because they depend on the traits they have to survive.

Humans adapt faster than animals and plants because they do not depend on their traits only but they can also change their environment.

- In the arctic zone, the weather is very cold and many animals and birds live there

Ex. polar bear has thick white fur and layers of fats and blubber to keep it warm



The blubber: thick fat with many blood vessels

- Arctic animals may have other ways of adaptation

Ex. some animals can vibrate their bodies to keep their muscles warm

Ex. some arctic birds fluff their feathers to trap warm air near their bodies

Camouflage: is blending into environment through the use of colors and patterns.

- Camouflage can help protect an animal from its predators (enemies) or help an animal sneak up on and catch its prey

Ex. polar bear has a white fur that helps it blends into snow as **it sneaks up on its prey.**

Ex. stick insect has a sticky shape that helps it blend in with the sticks of the plants **to be protected from its enemies.**



Lesson 3: beaks

- Different birds have many different types of beaks for suitable food.

1. Spoon beak: they look like spoon.
Types of food: **small fish and small plants in water.**



spoonbill bird



pelican

2. Scissor beak: they look like scissors.
Types of food: **meat of animals**



eagle



owl

3. Tweezers beak: they look like tweezers.
Types of food: **fish and insects.**



heron



egret



kingfisher

4. Clothespin beak: they look like clothespin.
Types of food: **seeds and grains.**



wren



goldfinch

Revision

Choose:

1. When new living organisms are born, they are called (parents – offspring – moms).
2. Hair color and (writing – mouth shape – reading) are from inherited traits.
3. Some arctic animals may vibrate their bodies to (keep their body warm – catch their preys – blend in with the snow).
4. The white fur helps the polar bear to blend in with the white color of the snow to (feel cold – easily catch its prey – keep its body cool).
5. Arctic animals have many adaptations to keep their body warm such as (having blubber – wearing clothes).
6. Arctic animals have many adaptations to keep warm such as (fluffing their feathers – having blubber – all the previous answers).
7. Arctic zone is a habitat in which animals adapt to (cold weather – hot weather – sunny weather).
8. Egret has a (tweezer – spoon – scissor) beak.
9. Goldfinch eats (fish – insects – seeds).

Put (T) or (F):

1. The origin is the source or cause of something. ()
2. The timeline shows important events in order over a period of time. ()
3. Inherited traits are not passed from parents to their babies. ()
4. Parents pass on traits to their offspring to help them die. ()
5. Some inherited traits help living organisms to die. ()
6. The traits help animals and plants to survive are passed to offspring from mothers only. ()

7. Cactus plants have thorns to protect them from animals. ()
8. The spines protect turtle against its enemies. ()
9. Humans depend on their traits only to adapt the surrounding environment.
()
10. The blubber in polar bear is thick fat with many blood vessels. ()
11. The white fur helps the polar bear to survive in the arctic zone. ()
12. Birds differ in the shapes of their beaks according to the food they eat.()
13. Egret bird has a spoon beak. ()
14. Eagle eats seeds and has scissor beak. ()
15. Wren birds eat fish and insects. ()

Complete:

(Writing – nose shape – skin color – reading – hair color – riding a bicycle)

1. Inherited traits:
2. Not inherited traits:.....

(traits – source – blubber)

1. The origin is used to describe the..... or cause of something.
2. Each animal has.....that help it survive and adapt its habitat.
3. Polar bear has layers of fats and..... to keep it warm.

(writing – parents – offspring)

- Inherited traits are passed from.....to their.....such as eye color, while not inherited traits are learned and developed such as.....

(rabbit – giraffe - hedgehog – turtle)

1. The large ears ofhelp it to hear and avoid danger.
2. The shell of..... protects it against enemies.
3. The tall neck ofhelps it to reach the leaves of tall trees for feeding.
4. The spines ofprotect it against its enemies.

(colors – blending – patterns)

- Camouflage is the act ofinto the environment through the use of.....or.....

Scientific term (what is this?):

1. The source or cause of something.
(.....)
2. Shows important events in order over a period of time.
(.....)
3. Passed from parents to their babies or offspring.
(.....)
4. Thick fat with many blood vessels.
(.....)
5. Blending into environment through the use of colors and patterns.
(.....)
6. Animal has a sticky shape that helps it blend in with the sticks of the plants to be protected from its enemies. (.....)
7. Animal has a white fur and live in arctic zone. (.....)
8. Animal has shell to protect me against enemies. (.....)
9. Bird has a spoon beak. (.....)
10. Bird eats meat of animals. (.....)
11. Bird eats seeds and grains. (.....)
12. Bird has tweezers beak. (.....)

What is the importance of:

1. Timeline:
2. Inherited traits:
3. Strips on body of zebra:
4. Thorns of cactus:
5. Blubber of polar bear:
6. White fur of polar bear:
7. Sticky shape of stick insects:
8. Camouflage:

Match:

1. Some arctic birds fluff their.....	a. The food they eat
2. The stick insect has sticky shape that helps it.....	b. Feathers to trap warm air near to their bodies
3. Birds differ in shapes of their beaks according to.....	c. Blend in with the sticks of the plants to be protected from enemies

1. Camouflage is the act of blending into.....	a. Not inherited traits
2. Some animals depend on their.....	b. The environment through the use of colors or patterns
3. Riding a bicycle is.....	c. Traits to survive in their habitats

animals	traits
1. giraffe	a. The shell protects it against its enemies
2. rabbit	b. The tall neck helps it to reach the leaves of tall trees
3. turtle	c. The spines protect it against its enemies
4. hedgehog	d. The large ears help it to hear and avoid any danger

bird	food
1. Spoonbill bird	a. Meat of animals
2. Eagle bird	b. Small fish and small plants
3. Heron bird	c. seeds
4. Goldfinch bird	d. Fish and insects

bird	beak
1. pelican	a. tweezer
2. owl	b. clothespin
3. kingfisher	c. scissor
4. wren	d. spoon

Chapter two

A New Look To Ancient Art

Learning outcomes

By the end of this chapter, your child be able to

- 1-Compare character actions and feelings in a story.
- 2-Identify examples of art in the contemporary world.
- 3-Sequence artwork in order from oldest to most recent.
- 4-Explore gradient of color (such as from dark to light)
- 5-Use geometric shapes in original artwork.

Key vocabulary

Origin	Gradient	Raw materials
Sculpture	Dialogue	Props

Lesson 1

Activity Look at the pictures and read the following short dialogues, then answer the questions below

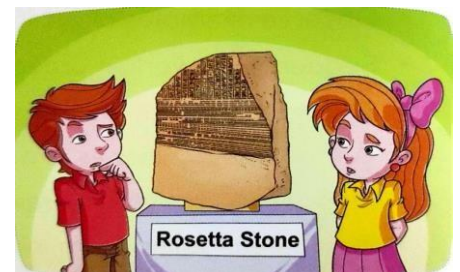
Ali: It is the sculpture of Tutankhamun.

Maha: wow it is so amazing.



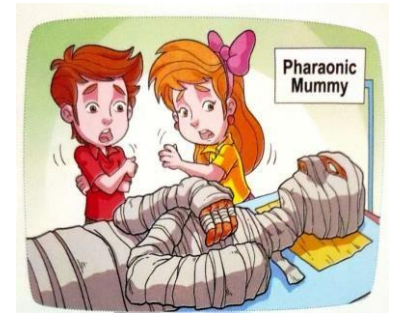
Ali :What is that ?

Maha:I don't know



Ali : I am afraid

Maha : It is scary.



Ali : Wow, it is so colorful

Maha : So beautiful

Put (✓) or (X)

- 1- Ali and Maha feel afraid of the royal crown ()
- 2- Ali and Maha know what Rosetta stone means ()
- 3- Ali and Maha feel happy with the pharaonic mummy ()
- 4- Maha is amazed by the sculpture of king Tutankhamun ()



Lesson 2

When was it Made ?

Activity match each picture to its suitable information .



Papyrus painting
around 2000 B.C.E.

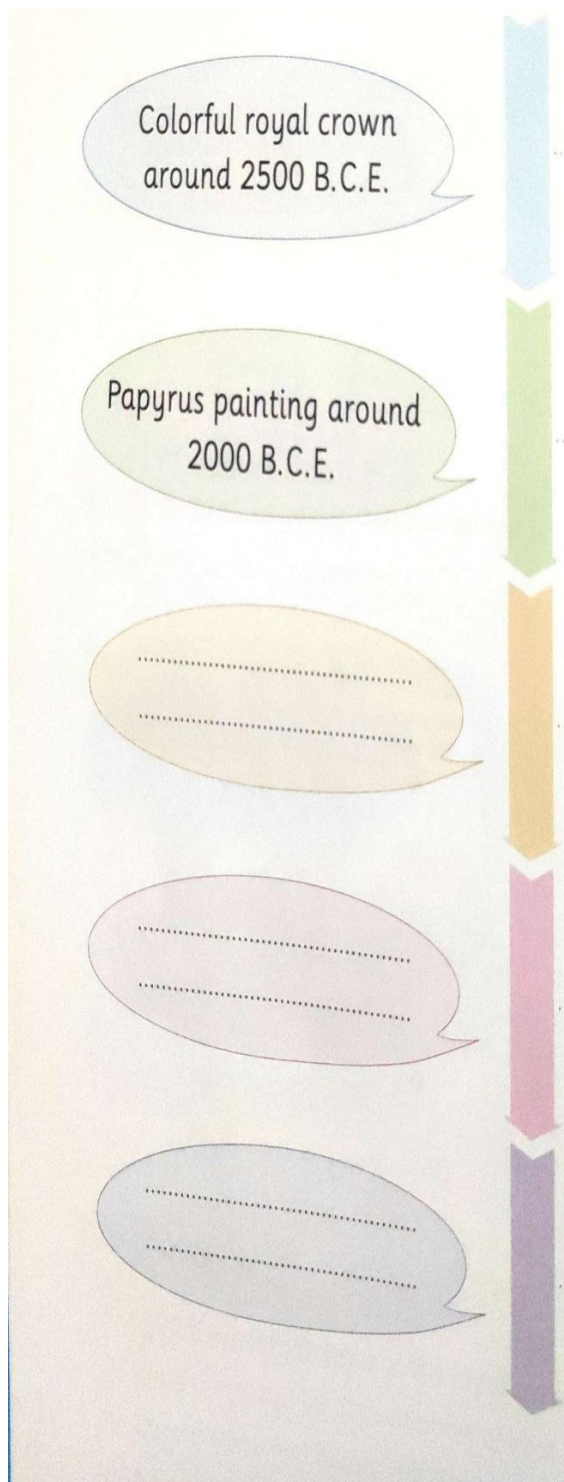
Baron's Palace 1911.

Colorful royal crown
around 2500 B.C.E.

Rosetta Stone
196 B.C.E.

Lion sculpture 1933.

Activity : From the previous activity, arrange the artifact images from the **oldest to the newest** by using sticker pictures and write their information.



Activity : Read the following paragraph, then answer the questions below ,and **find your answers in the letter box.**

Colors were important to ancient Egyptians, as they used many colors in coloring the wall paintings, decorating the pharaonic crowns ... etc. They used six main colors; red, green, blue, yellow, black and white.

The origin of the paint colors were from natural minerals found in the rocks of the Earth. Artists would grind the minerals into fine dust and then mix them with a kind of glue.



Complete:

1-The six main colors which were used by Ancient Egyptians are:

.....
.....

2-The origin of colors were from natural minerals found in the rocks of the

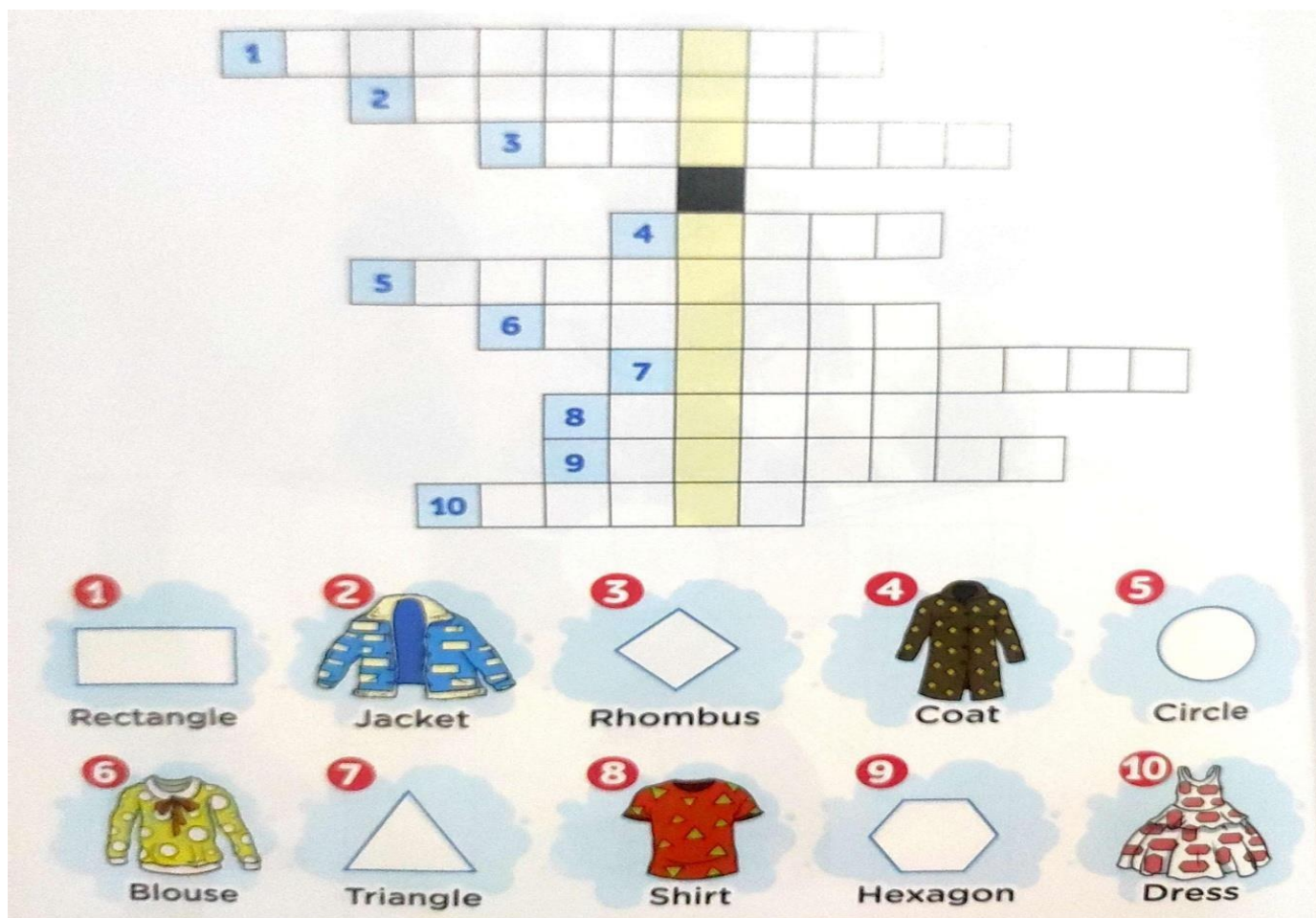
3- Artists would grind the minerals into find and

4-then mix them with a kind of.....

Lesson 3

Raw Materials

Activity : write the names of geometric shapes and clothes in the suitable places according to their numbers to find the secret message .

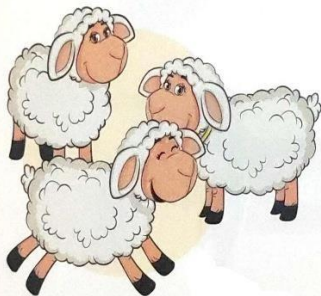


The secret message is :

Activity : match each source of material to its finished product



Silkworm



Sheep



Cotton plant



Silk



Wool

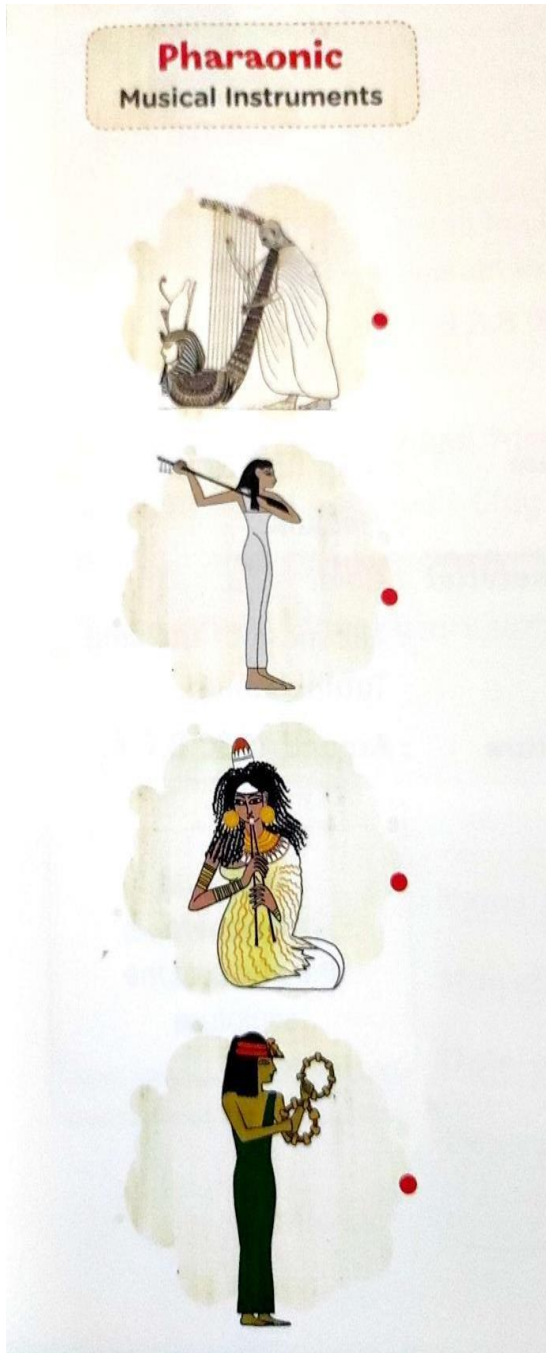


Cotton

Lesson 4

Origins of Egyptian music

Activity : match each pharaonic musical instrument



Lesson 5

Sculpture in Ancient Egypt

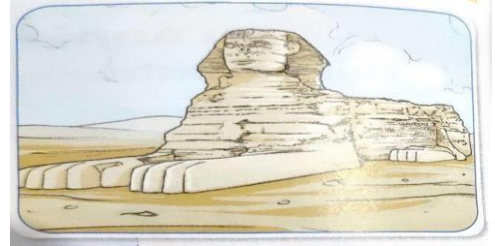
Name of sculpture: the sphinx

Its size: very big

Manufacturing material: stone

Description: it has a body of lion and a head of human.

Date of manufacture: around 2500 B.C.E



Name of sculpture: King Tutankhamen

Its size: Medium

Manufacturing material: gold

Description: the mask of the king Tutankhamen.

Date of manufacture: around 1330 B.C.E



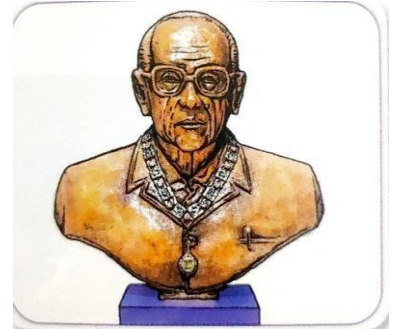
Modern day sculpture

Name of sculpture: Naguib Mahfouz

Manufacturing material: bronze

Date of manufacture: 2002

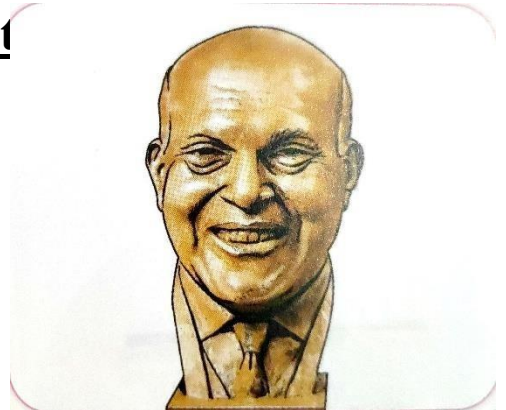
Description: writer and novelist Naguib Mahfouz



Name of sculpture: Magdy Yacoub **Manufacturing material:** clay

Date of manufacture: 2018

Description: global heart surgeon



Stick here
the photo of the
sculpture

Name of sculpture :

Manufacturing material:

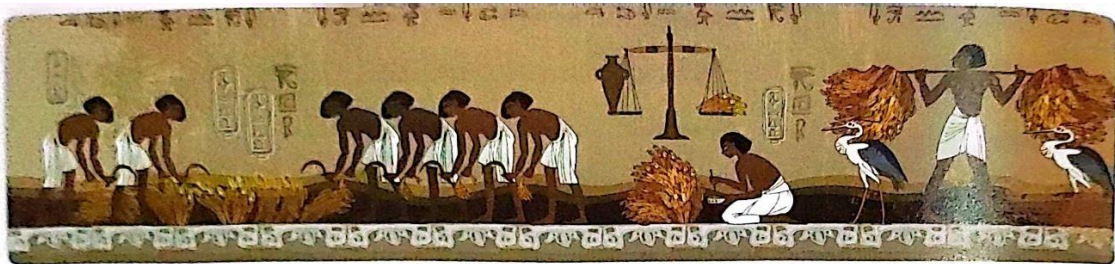
Date of manufacture :

Description :

Lesson 6

Ancient paintings

Activity: Look at the following ancient painting, then write a play about this painting, then draw the props of your play.

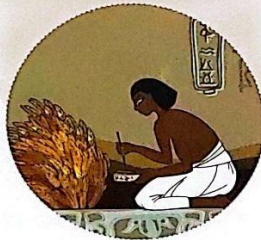


★ Characters :

Farmers



Writer



Transporter

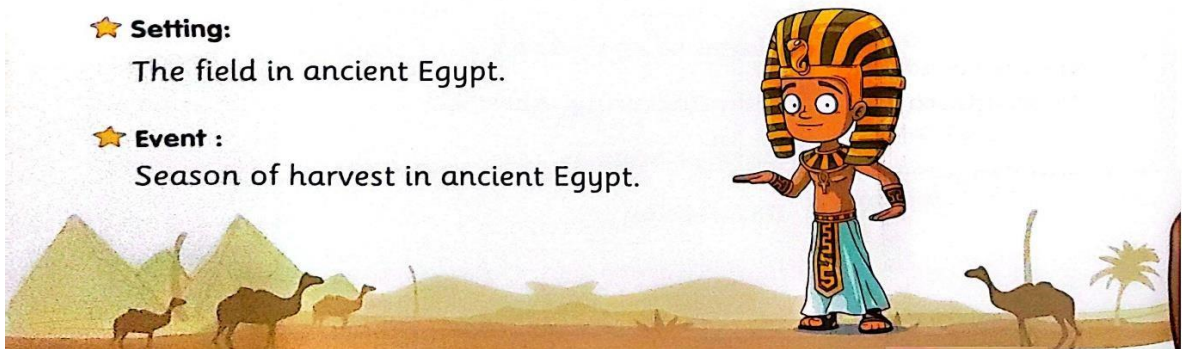


★ Setting:

The field in ancient Egypt.

★ Event :

Season of harvest in ancient Egypt.



Write the dialogue of the play.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Chapter 3

Lesson 1: fact, fiction, opinion

Fiction: it is something told or written and is not true,

Ex. drinking warm tea which makes your throat better.

Opinion: it is what one person believes or feels and an opinion is not always true.

Ex. using a cold towel on your head to reduce the high temperature of your body

Fact: it is anything that is true and can be proven or verified.

Ex. your visit to the doctor when you feel tired.

This papyrus is dated between 1500 – 1700 BC.

It describes almost 100 terms for body parts.

It describes at 48 injuries and ways to treat them.



imhotep

Primary source: it is an artifact that comes from a time being studied or from a person who was involved in the events being studied.

Ex.

- Edwin smith papyrus (Imhotep)
- An interview with a famous person
- Use a camera to take photographs

Secondary source: it is anything that describes, interprets, evaluates or analyzes information from primary sources because you did not get to look at the original source.

Ex. books, articles

Lesson 2: medical tools

- Medical tools are important devices used in medicine.

The origin of the medical tools of ancient Egyptians like the oldest metal surgical tools were discovered in the tomb of qar. These tools are now preserved in the Imhotep museum in Saqqara.

Old medical tools such as:

- Medical saws which are used for surgery.
- A tool which was used to make pills.
- Old tools like forceps hooks drill spoons and knives were used in many procedures.
- Some of these tools were found by archeologists.

Archeologists: are people who study the past using artifacts. They often discover the artifacts by carefully examining places where people used to live long ago.

medical tools nowadays such as:

- stethoscope: used to listen to your heart and lungs.
- Blood pressure cuff: used to measure how hard your heart is pumping.
- Thermometer: used to measure your body temperature.
- Syring and ampoule: used to give shots.
- x-rays image: used to look at bones inside your body.
- Otoscope: used to look into your ears.



Revision

Choose:

1. It is what one person believes or feels (fiction – opinion – fact).
2. It is anything that is true and can be proven or verified (fiction – opinion – fact).
3. It is something told or written and is not true (fiction – opinion – fact).
4. Drinking warm tea considered as (fiction – opinion – fact).
5. Using a cold towel on your head to reduce the high temperature considered as (fiction – opinion – fact).
6. Visit to the doctor when you feel tired considered as (fiction – opinion – fact).
7. Edwin smith papyrus describes almost (300 – 100 – 500) terms for body parts.
8. Edwin smith papyrus describes at (48 – 200 – 70) injuries and ways to treat them.
9. Textbooks are considered as (primary source – secondary source)

Put (T) or (F):

1. When you feel tired the right thing to do is to take any medicine you have ()
2. Opinion is anything that is true and can be proven or verified ()
3. Fiction is something told or written and is not true ()
4. Edwin smith papyrus describes almost 400 terms for body parts ()
5. Edwin smith papyrus describes at 48 injuries and ways to treat them ()
6. An interview with a famous person is Secondary source ()
7. Edwin smith papyrus is primary source ()
8. Secondary source is an artifact that comes from a time being studied()
9. Medical tools are useless tools ()
10. Thermometer used to measure your body temperature ()
11. Syringe is used to give shots ()
12. Archeologists study the modern things ()

Complete:

(fact – opinion – fiction)

1. Jumping rope is the most fun way to exercise (.....)
2. Taking brain breaks is a fun way to help me focus (.....)
3. Exercising is a healthy habit (.....)
4. Skin protects our body (... ..)
5. Eating sugary cookies will make me as strong as a superhero
(.....)
6. Getting enough sleep is important to my health (.....)
7. Eating healthy food is the best thing you can do for your body
(.....)

(Thermometer – stethoscope - X-rays image)

1. It is used to look at bones inside your body (.....)
2. It is used to measure your body temperature (.....)
3. It is used to listen to your heart and lungs (... ..)

Scientific term (what is this?):

1. it is something told or written and is not true (.....)
2. it is anything that is true and can be proven or verified (... ..)
3. it is what one person believes or feels (.....)
4. it is an artifact that comes from a time being studied (.....)
5. it is anything that describes, interprets, evaluates or analyzes information
(.....)
6. people who study the past using artifacts (.....)
7. it is used to listen to your heart and lungs (... ..)
8. it is used to measure how hard your heart is pumping (... ..)
9. it is used to measure your body temperature (.....)

10. it is used to give shots (... ..)
11. it is used to look at bones inside your body (... ..)
12. used to look into your ears (... ..)

What is the importance of:

1. Stethoscope
2. Blood pressure cuff
3. Thermometer
4. Syring and ampoule
5. X-rays image
6. Otoloscope

THEME4

Communication connections

CHAPTER ONE **connecting forces**

Key vocabulary

Force

Motion

Pull.

Push

Predict

Magnet

Attract

Motion on The farm

Activity Read the following conversation, then answer the questions.

As soon as Adam and Mona got off the bus , the farmer met them at the gate.

Adam and Mona told the farmer that they would visit the cotton fields first.

A Little white cat rubbed against Mona's legs.

Adam : I can't wait to see all the other animals on the farm. We have cats at home, but I have never seen anything bigger than a goat up close before.

Mona : I am excited to look inside the grain silos.



- They began to walk to the fields.

Adam : There are many goats here. I lost count of the goats that are in the pen next to the big barn.

The farmer : Look, children, this is how we sow seeds in our field.

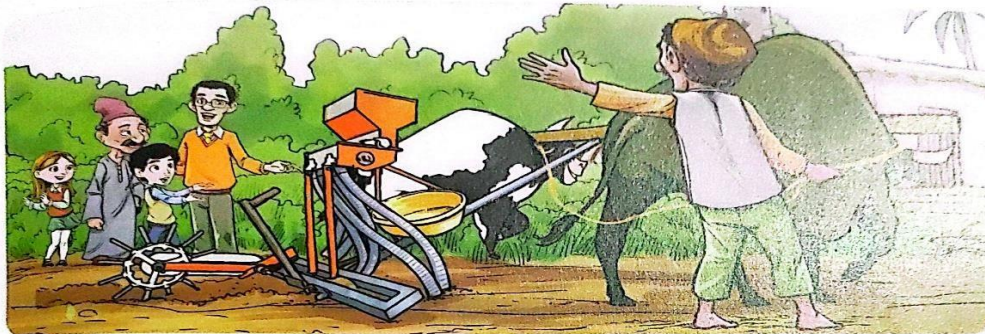


Adam : But, I don't realize that I am on a field. Nothing was growing! How could this be a cotton field?

Mona : Look Adam...! There are two giant oxen approaching, pulling something behind them.



The farmer : This team of oxen is pulling a spreader. Look closely at the machine they pull. Do you see that lever ? It is broadcasting cottonseed.



- Adam watched as seeds flew out in an arch along the rows of dirt. It was like watching a fountain. Sometimes the seeds traveled so far, and other times they fell close to the machine. He wondered why the man driving the oxen kept changing the oxen's speed.

Mr. Hany : Do you notice that sometimes the seeds go far and sometimes they fall near ? What do you think makes that happen ?

Adam : I think the seeds go far when the oxen move at a high speed, and the seeds fall near when the oxen move at a low speed.

Mr. Hany : Very good, Adam.

Put (✓) or (×)

The oxen pull the spreader to broadcast cottonseed

()

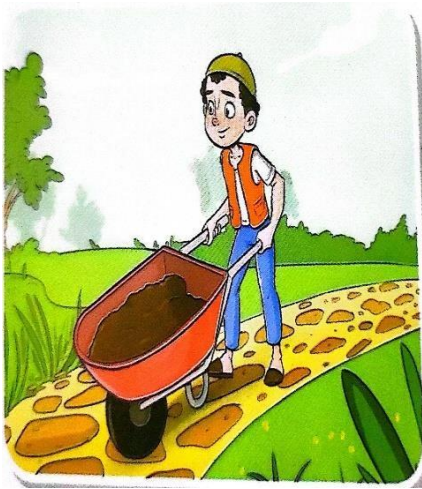
When the oxen move at a high speed, the seeds fall near()

When the oxen move at a low speed , the seeds go far ()

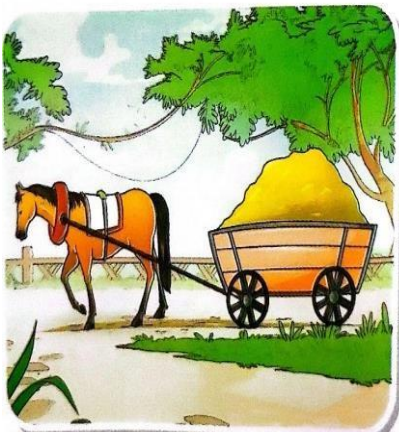
Lesson 2 **predict The Motion**

Force: it is a push or pull on an object that causes motion.

Activity complete the sentences using the words pushing or pulling to describe the forces you observed



The farmer isthe wheelbarrow



The horse isthe car.

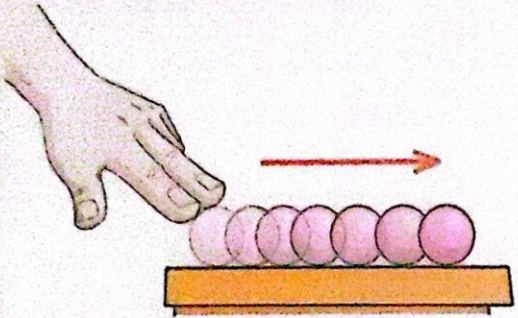
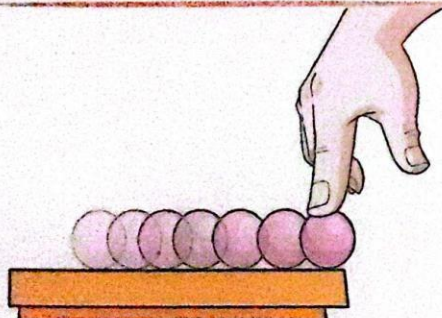
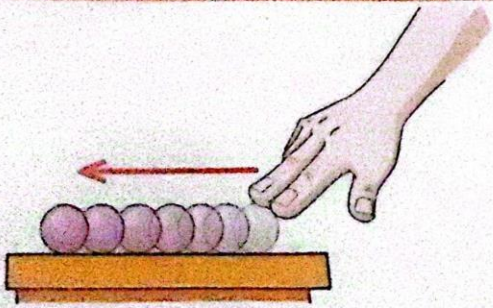
The boy isthe ball to his friend



The child isthe toy car.



Read and learn

Motion	Observations	Conclusion
 Push the marble with your hand.	The marble starts to move.	
 Put your hand on the marble.	The marble stops its motion.	A force can be used to cause an object to start moving, stop or change direction.
 Push the marble with your hand in the opposite direction.	The marble changes its direction and moves in the opposite direction.	

Choose the predicted motion of the moving objects or person in each of the following situations.

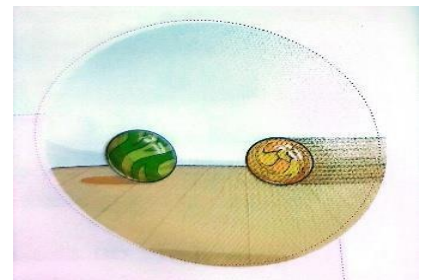
A toy is falling from a boy's hand so, the toy will.....

(Move upward _ move downward _ move to the right)



A yellow marble is moving in the left direction and hits a static Green marble so, the green marble will.....

(Move to the left _ move to the right _ stop moving)





**A dancer is swaying to the left and trying to regain her balance
So, the dancer will**

(Move downward – move to the left – move to the right)



**A rock is landing on a pile of sand after falling from a girl's
hand so the rock will**

(Move upward _ Move to the right _ stop Moving)

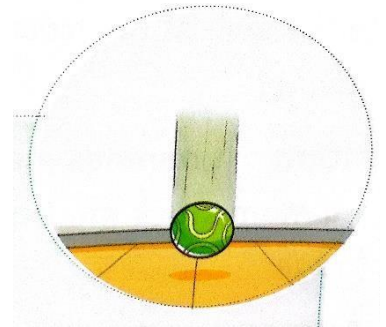
An apple is falling from a tree so the apple will.....

(Move downward _ Move upward _ move to the right)



A bouncing ball is hitting the ground so, the bouncing ball will.....

(Stop moving _ move to the left _ move upward)



Lesson 3

Adam's Discovery

Read and learn



The farmer: We don't always use oxen around the farm for work .we have big machines to help us, too.

Adam: Oh wow! This shiny orange tractor is bigger than I ever imagined. It can probably hold ten



goats. I can't wait to sit in the cab and steer it.

The farmer: Look , Adam. This is a

Schedule to tell me when to complete my chores.

Adam :But, how can you read the paper while working with both hands.

The farmer: I can stuck the list right to the wall of the tractor cab



with this magnet.

Mona: It reminds me of the time when my mom stuck my best drawings on the fridge.

Adam : yes, I couldn't resist taking down the magnets to play with them.

Activity 2 Test the effect of a magnet on each of the following objects :
(Glass cup - Nail - Key - Envelope - Paper clip - Pencil -
Scissors - Eraser), then put the stickers in the suitable place
in the table below.

 Note

Magnets attract objects that contain iron metal, cobalt metal and nickel metal.

**Objects attracted
to the magnet**

**Objects not attracted
to the magnet**

Note
Stickers are
at the end of
the book

Lesson 4

Magnetism In Use

Read and learn, then answer the questions.

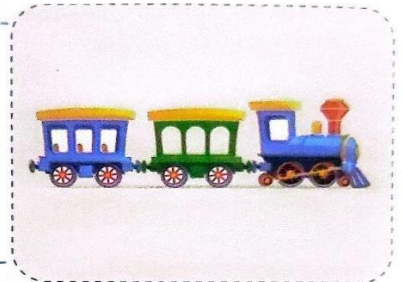
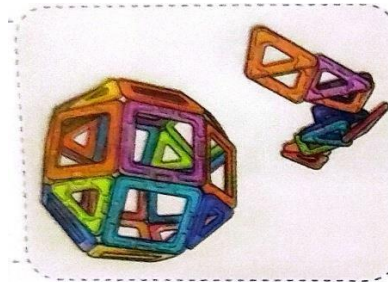
Uses of magnets in our daily life.

We can stick a note to a refrigerator



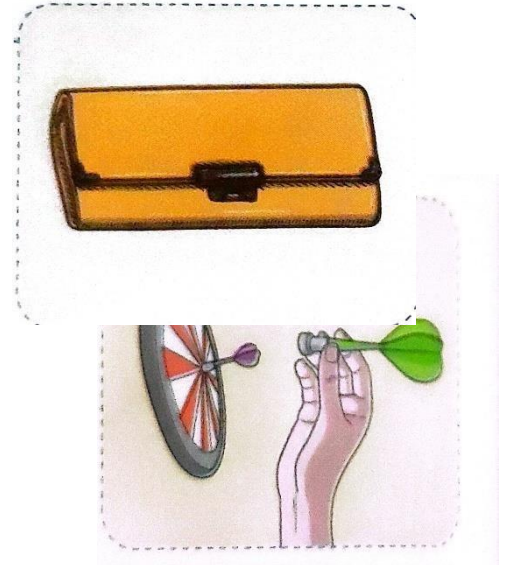
with a magnet.

There are toys that use magnets to make blocks or train cars stick together.



Some dartboards use magnets to make the darts stick to the board.

Magnets are sometimes used to keep



wallets, cabinets or boxes closed.

Powerful magnets can help separate some

Metals that can be recycled from other



garbage.

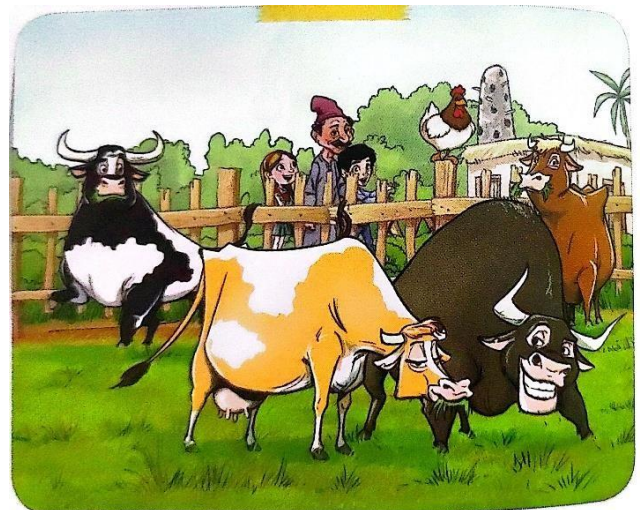
Lesson 5

The Farmer

Needs Help

Activity /Read about what Adam and Mona see next on their field trip, then answer the questions .

The farmer : you might think that



farms are old fashioned, but we are always trying to make our farm better .

We have been researching some options to give our cattle a better life .

The oxen work so hard for us in the fields, and our cows provide us with milk .

Mona : I think if the cattle could be free on the pasture, they would be stronger and able to work harder for the farmer. It is important we do not lose them.

The farmer : we bought some fences. That way the cattle can have this huge pasture to graze freely whenever they want.

Adam : How do you keep them in the barn at night, so they stay safe ?



They could walk out in the dark and get hurt.

The farmer : That is a great question



We have been struggling to keep the gate closed.

It opens like a regular door, but cattle are smart.

They have started pushing it open to get into the fields all night long.

Adam : I think we can use two large strong magnets to close the gate.

Chapter 2

Lesson.1

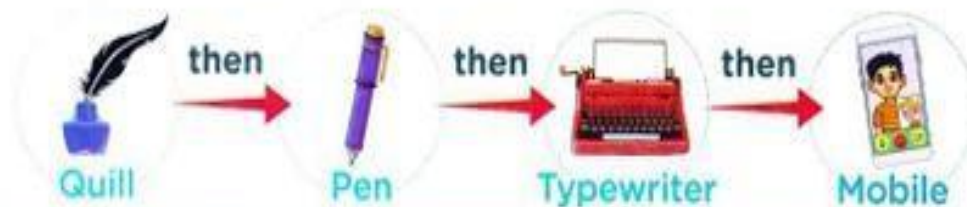
Technology : It is a tool designed to solve a problem.



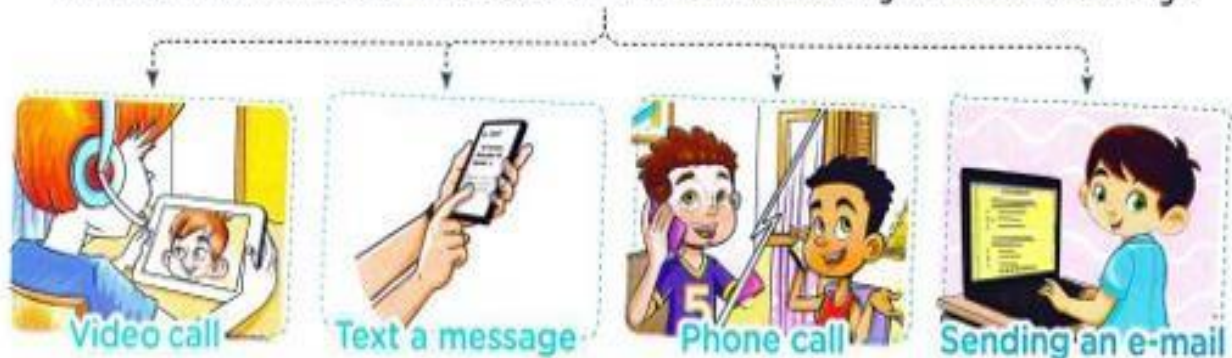
★ Each piece of technology helps to solve a problem, for example :

1 Communication :

Technology plays an important role in the development of communication, as communication tools are developed through time as follows:



You can communicate with others without traveling to meet them by :



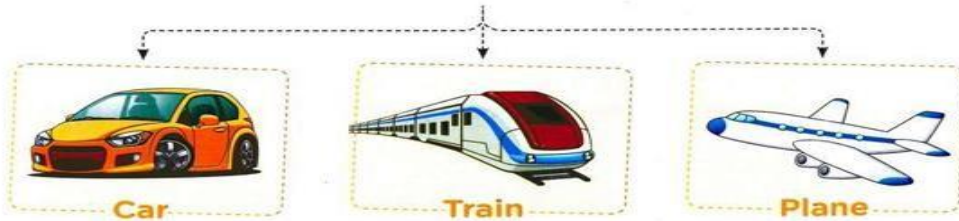
son 1: technology through time

2 Transportation :

Technology plays an important role in the developement of transportation as means of transportation are developed through time as follows:



You can move from one place to another, visit other people and trade goods and services by :



Group 1



Pen



Mobile



Quill



Typewriter



Group 2



Gasoline car



Bicycle



Electric car



Cart

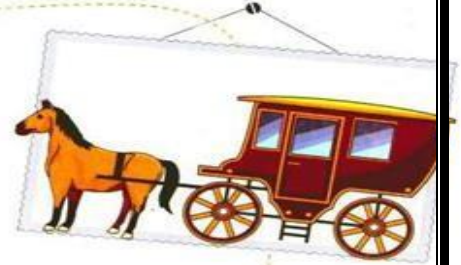


activity: arrange each group of cards from the oldest to the newest by writing numbers 1, 2, 3, 4

Cart

Advantage : • It is used for transporting goods and passengers.
• It keeps the environment clean.

Disadvantage : • It is slower than cars.
• Horses may get tired over time.



Bicycle

Advantage : • It increases the muscles strength.
• It keeps the environment clean.

Disadvantage : • It is designed to carry one or two passengers.
• It is slower than cars.



Gasoline car

Advantage : • It is fast, so we can move quickly from one place to another.

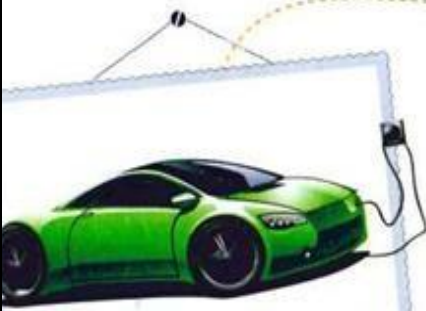
Disadvantage : • It causes air pollution and noise pollution.
• It is expensive.



Electric car

Advantage : • It keeps the environment clean.
• It is fast, so we can move quickly from one place to another.

Disadvantage : • It is more expensive than gasoline car.



Lesson 2: why people need transportati

- People use means of transportation to **move** from one place to another or to transport goods all around the world.

Why do people need transportation ?

- 1 Young people go to schools by bus.



- 2 Adults need transportation to go to work.



- 3 People need transportation to visit friends and family.



- 4 Transportation is used to move goods from where they are made to where they are sold.



Lesson3: goods

Trade : It is buying or selling **goods** and **services**.

- **Goods** that we buy or sell : **Food** , **Clothes** , **Furniture** , etc.



- **Services** that we buy or sell : **Sewing** , **building** , etc.



- People **trade** (exchange) with each other to get the goods and services they want.
- People use **money** to make trade easier.



- In ancient times, before the concept of **money** even existed, people traded goods in exchange for other goods. This is called "**Bartering**"



Transportation makes trade easier

- Means of transportation help in trading goods through :



Water
by ships



Long distance
by trucks and trains



Mountains
by planes

activity: write “barter” if the situation needs barter for trade or “money” if the situation for trade.



Ahmed paid L.E.15
for a ball.



Mona traded Rania a doll
for a car.



Sara traded Soha a chicken
for a fish.



Amged paid L.E.10
for vegetables.

Lesson4: meeting people's needs

- Engineers are trained to solve **design challenges**.
- One of design challenges is **"improving transportation systems"**.
- Engineers must design a solution that meets the **needs** of the community.



★ The factors that engineers must consider when they design a transportation system :

1- Location

- They must think about where the transportation system is going to take passengers.
- They must think about how far the people using the system need to go.

2- Users

- They must think about who will use the system.
- They must decide if the system will need to transport people, goods or both.

3- Resources needed

They must think about machines and people needed to operate the transportation system.

4- Feedback

- They must think about how well the system is working.
- They must think about any issues.



Note

We can use feedback to change other factors and improve the system.

★ Now, Let's see an example of transportation system diagram.

- designing transportation system

Need

Around one million Egyptians live in North America. Design a transportation system that connects Egyptians to their family members and friends in Egypt.



Type of transportation system

Airplanes.



1- Location

Airport near a major city and if it is not in the city, we need buses or cars to reach the airport.

2- Users

Adults, children, pets and baggage.

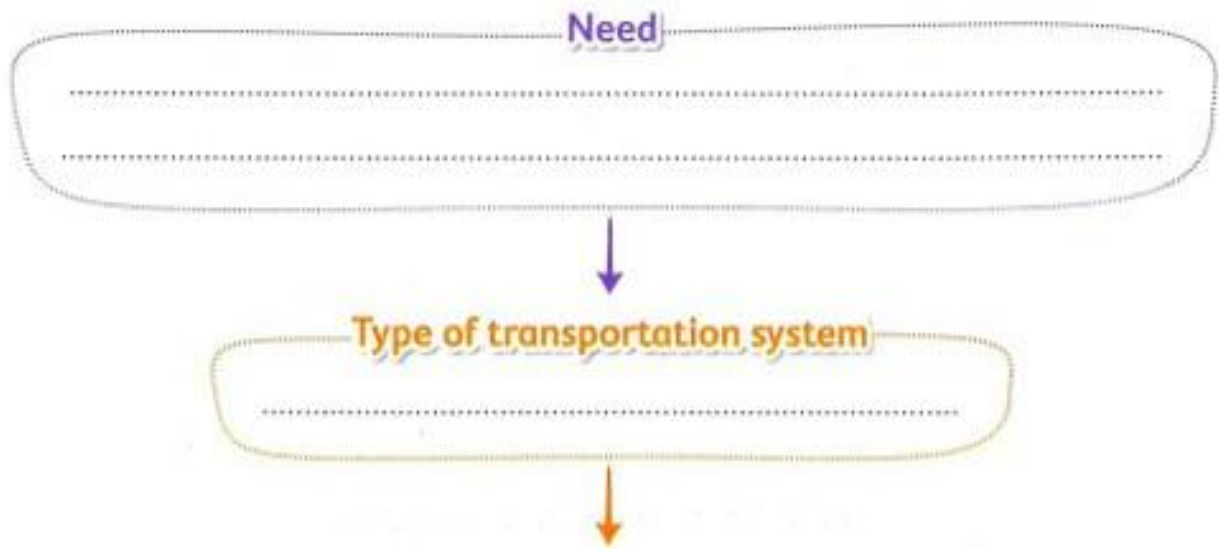
3- Resources needed

Airports, airplanes, pilots and passengers.

4- Feedback

- Number of flights.
- People traveling.
- Accidents.

activity: fill the following diagram using an example of transportation system that is used on land or in water



1- Location

.....

.....

2- Users

.....

3- Resources needed

.....

.....

4- Feedback

.....

Lesson5: floating magnets

Activity Follow the steps to complete the activity, then answer the questions.



Note

Like poles repel and different poles attract.

★ Materials :



Pencil



Two circular magnets

★ Steps :

1

Hold the pencil upright on your disk.



2

Move one magnet along the pencil to place it, on the desk.



3

Move a second magnet onto the pencil.



★ Observation :

The second magnet floats in the air and it doesn't touch the first magnet forming a gap between them.



★ Conclusion :

Like poles repel each other due to the magnetic field of the two magnets forming a gap between them.

- **Transportation innovations**

Maglev train

- **Maglev** train means **Magnetic Levitation** train.
- It works by using **powerful magnets** which make the train **float** above tracks.
- It depends on the **repulsion force (repel)** between the powerful magnets.



★ Advantages :

- It can move very fast (**more than 480 kilometers per hour**).
- It ensures a **smooth** and **quiet** ride.
- It doesn't cause pollution.

★ Disadvantage :

- It is expensive to build and operate.

Hyperloop

- The hyperloop system transports people and goods through **Large tubes** very fast.
- It works similarly to maglev train as it depends on **repulsion force (repel)** between the powerful magnets.



★ Advantages :

- It moves very fast (almost 1200 kilometers per hour).
- It doesn't need much energy to run.
- It doesn't cause pollution.

★ Disadvantages :

- It is too expensive.
- It is too difficult to build and operate.

Lesson 6: the parts of the computer

Monitor "the output device"

- It allows the user to see the results.



Keyboard "the input device"

- It is used to enter data into the computer.



"Computer case"

- It consists of :

★ Central Processing Unit (CPU)

- It is the brain of the computer.
- It follows commands and manages information.
- It sends data to the output device.



★ Motherboard

- It connects all the parts of a computer.



★ Memory "RAM"

- It stores the short term data, so the CPU can use it.



★ Storage "Hard drive"

- It stores the long term data like computer programs.



💡 Notes

- The short term data is **temporary**, so it will **erase** when the computer is **powered off**.
- The long term data is **permanent**, so it **will not erase** when the computer is **powered off**.

A computer system is composed of :

- **Hardware** : which includes a set of **equipment** such as the monitor, keyboard and computer case.
- **Software** : which includes a set of **programs** that work together to complete a task or a function.

The steps of calculating a simple multiplication problem on the calculator

★ **Second** : The steps of **calculating** a simple multiplication problem on the **memory** of a computer.



Input

- The input device sends the multiplication problem to the CPU.



CPU

- The CPU solves the problem and then sends the answer to the motherboard.



Motherboard

- The motherboard sends the answer to the memory.



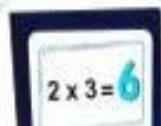
Memory

- The memory sends the answer back to the motherboard.



Motherboard

- The motherboard sends the answer to the output device.



Output

- The output device shows the answer.

Lesson 7: my turn

In the evening, Ahmed's family used to spend an hour talking to each other while Ahmed was playing video games on his phone.

Mother : Ahmed, you spend a lot of time playing video games!

Ahmed : Yes, mother, but I have fun when I play video games.

Mother : Yes, Ahmed, but you should not waste your time on video games because you will not have time to play with your friends and talk with us.

Ahmed : You are right, mother, but what can I do to control my use of video games ?

Mother : You should play a certain amount of time and play at a certain time of the day.

Ahmed : I promise you, mom, I will not waste my time on video games.



Life without technology



★ We can communicate with others without technology by :

- Spending time with each other.
- Seeing and talking with each other.
- Visiting each other.

Life with technology



★ We can communicate with others with technology by :

- Phone calls.
- Video calls.
- E-mail.
- Texting messages.

Revision

Choose:

- 1..... Increases the muscles strength and keeps environment clean.
(gasoline car – bicycle – electric car)
2. The bicycle is newer than
(gasoline car – bicycle – electric car)
3. People use..... to make trade easier.
(money – goods – clothes)
4. Means of transportation help in trading goods through mountains by
(bicycle – cars – planes)
5. The airplane is an example of transport.
(air – land – water)
6. People can transport goods through land by
(truck – ship – airplane)
7. Traina and..... are land transport which carry heavy goods.
(trucks – bicycle – ships)
- 8..... is one of the services that we can buy or sell.
(food – clothes – building)
9. All the following are transportation means, except
(ships – cars – television)
10. In the previous activity, the second magnet..... the first magnet.
(touches – does not touch)
11. In the previous activity,..... is formed between two magnets.
(Gab – hole)
12. In the previous activity, the poles repel each other due to of the two magnets.
(weight – magnetic field)
- 13..... connects all the parts of the computer.
(memory – monitor – motherboard)
14. The includes a set of programs that work together to complete the task.
(hardware – software – monitor)

Put (T) or (F):

1. Carts and bicycles pollute the environment. ()
2. Carts are slower than cars. ()
3. A bicycle is used for transporting goods and passengers. ()
4. A cart increases the muscles strength. ()
5. Gasoline and electric cars keep the environment clean. ()
6. A gasoline car is faster than cart and bicycle. ()
7. An electric car is less expensive than a gasoline car. ()
8. Gasoline car causes air pollution and it is expensive. ()
9. Transportation is used to move goods from where they are made to where are they sold. ()
10. Train and bicycle are examples of land transportation. ()
11. Cars and buses are example of air transportation. ()
12. People use money to make trade easier. ()
13. In ancient times, people traded goods for money. ()
14. Water transportation help in trading goods by planes. ()
15. Cars and buses are very useful for short journeys in good weather. ()
16. Ships carry goods across oceans. ()
17. Airplanes transport people quickly over oceans. ()
18. Bicycles transport people quickly in their communities. ()
19. Trucks carry heavy goods. ()
20. Like poles repel and different poles attract each other. ()
21. Like poles attract each other due to the magnetic field of the two magnets. ()
22. A maglev train moves very fast almost 1200 kilometers per hour. ()
23. A maglev train makes pollution. ()
24. A hyperloop does not need much energy to run. ()
25. Maglev and hyperloop trains are too expensive. ()
26. A keyboard allows the user to see the results. ()
27. A central processing unit is the brain of the computer. ()
28. The long term data is temporary, while the short term data is permanent. ()
29. A computer system is composed of hardware and software. ()
30. We can communicate with each other with technology only. ()
31. Phone calls, video calls and e-mail are examples of communication with others with technology. ()

32. Hyperloop works by using powerful magnets which make the train float above tracks. ()
33. In the computer, the hard drive stores the short data. ()
34. It is not expensive to build a maglev train. ()

Complete:

1.,..... andare examples of technology.
2. You can communicate with others without traveling to meet them by video call,,....., and
3. Electric car andKeep the environment clean.
4. Cars are faster than and
5. Gasoline cars cause andPollution.
6. Horses pulling carts may Through time.
7. Cart is used for transporting and
8. Bicycle increases the strength.
9. Sewing and..... are services that we buy or sell.
10. Food, andAre goods that we buy or sell.
11. To make trade easier, people use
12. People trade with each other to get the.....andthey want.
13. The is exchanging goods for other things.
14. Means of transportation help in trading goods through water, and
15. A..... Is a set of things that work together for a common purpose.
16. Transportation systems work together to transport and
17. Ships carry andAcross oceans.
18. The means of transportation that are used for travelling very long distances are
19. A maglev train works by usingmagnets which makes the train Above tracks.
20. A maglev train depends on.....force between the powerful magnets.
21. A hyperloop train transports people and goods through
22. A hyperloop train does not need much..... to run.

23. A computer case consists of CPU,,,And
.....
24. A central processing unit followsAnd
manages
25. In a computer system,sends data to the
output device.
26. In a computer system,connects all the part
of the computer.
27. In a computer system,stores the short term
data andstores long term data.
28. The short term data is, so it..... when
the computer is powered off.

(bartering – technology – bicycle)

1. Exchanging goods for other goods is called
2. A tool designed to solve a problem is called
3. The..... Can increase the muscles strength.

(money – trade – services)

- People with each other to get the goods and
They want by using

Scientific term:

- People use me to buy goods to make trade easier.
(.....)

What is the meaning of:

1. Technology
.....
 2. Transportation system
.....
- Mention an example of air transportation
 - Mention one example of goods that we can buy or sell
.....
 - What are the advantages of a maglev train
.....
.....

- What are the disadvantages of a hyperloop

.....

.....

- What happen when you put two like poles of magnets close to each other?

.....

★ First : Hospitals in the Past.

- Such as Mansuri hospital is an example. It was built in 1248.
- It could hold more than 4000 patients.
- It has different areas such as a huge lecture hall, a school, an orphanage, a mosque for Muslim patients and a church for Christian patients.
- A doctor would visit each patient and record his observations on the patient's card to give him treatment.



Mansuri Hospital

★ Second : Hospitals Now.

- Magdi Yacoub Global Heart Foundation in Aswan is an example. It was built in 2009. A new center is also being built in Cairo.
- The hospital has the latest technologies.
- They provide training for doctors and nurses and free medical services.
- Hospitals today have an organized medical services including surgery or pediatrics (children's doctors).
- Today, most hospitals serve fewer than 800 people.
- Hospitals now have different areas such as a pharmacy, a laboratory, physical therapy departments and emergency.



Magdi Yacoub Heart Foundation

Chapter .3

Connecting with community

Leeson 1 class newspaper

Media: They are the means of communication with others on a large scale.

Examples

1/Television

2/Radio

3/Newspapers

4/Magazines

5/Internet

communication with others on a large scale

Newspaper: it is a weekly or daily publication, consisting of folded sheets and containing articles on news, advertising,.....etc..

* **Anewspaper** help us stay connected to our community and to know what is happening around us.

Reporters : people who write in newspapers.

Activity:

Information about some parts (or items) of the newspaper

***Headline:** it is the title of an articles in the newspaper .

***Byline:** It is the name of the reporter.

1/ A newspaper: contains news of the weather, wind, rains, clouds,.... Etc .

2/A newspaper contains sports news such as football, tennis, volleyball, swimming,....etc.

3/A newspaper contains advertisements for some products such as computer, washing machines, T.v, mobiles, home furniture,.... Etc

4/A newspaper contains world and local news

5/A newspaper contains news of famous persons such as Ahmed zewail, Dr. Magdi Yacoub, Mohamed salah,... etc

Article: it is a piece of writing about a topic or a person that is included in a newspaper or magazine or any other publication.

The most important parts of an article

1/Headline 2/Byline.

3/ The person or topic we are talking about 4/conclusion

Read the following article.

NEWSPAPER

01 / 03 / 2021 Monday

№1864648

HELPING MY COMMUNITY

By : Adam Samir

Who are the community helpers ?

Community helpers are people who live and work in our community, some examples of them are : doctors, nurses, teachers, bakers, cleaners, etc. We will talk about the cleaner Khaled Mohamed, who is an important person in our community. He cleans the street from garbage. He is a respectable man. He smiles at people as he takes garbage from them. We must respect him because he helps the community. We must help him by not throwing garbage in streets.



An interview : it is a conversation in which a reporter asks questions that the subject of the interview answers and then a reporter uses the information gathered to write an article

You : what is your name?

Ramy Amir : My name is Ramy Amir.

You : How old are you ?

Ramy Amir : I was born in cairo.

You : How many members are there in your family?

Ramy Amir : 5 members.

You : what is your favorite subject?

Ramy Amir : My favorite subject is science.

You : What is your favorite sport ?

Ramy Amir : My favorite sport is tennis.

You : Where did you spend your last summer vacation?

Ramy Amir : In Sharm El-Sheikh.

You : What do you want to be when you grow up?

Ramy Amir : I want to be a doctor

Lesson 2

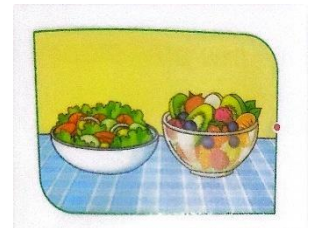
Healthy food protects from diseases



Sports strengthen the body and mind



Keep your school clean



Collaboration is the first step to success



A drop of water equals life



Revision

1)Complete

1/Media are

2/From example of media are television
.....and internet

3/Newspaper is a weekly or daily publication consisting
of..... and containing articles on news

4/.....are people who write in newspapers.

5/Newspaper help us stay.....to our community

2)Put (√) or (×)

1/A byline is the name of the reporter ()

2/A headline is the title of an article in the newspaper
()

3/A newspaper contains cartoons and advertisements only ()

4/The name of the reporter is found at the beginning of the
article ()

Answer the following question

A newspaper contains news of some famous person all around
the world ()

Who are community helpers?

.....

Mention some examples of community helpers.

.....

Who is khaled mohamed?

.....

.....

Describe the job of khaled mohamed in simple sentences.

.....

How can we help the cleaner to keep our environment clean?

.....,

Put (√)or (×)

1/An article is a piece of writing a bout a topic or a person that is found in newspapers or magazines. ()

2/An article consists of the headline and byline only ()

3/Headline is the name of the reporter ()

4/A newspaper may contain sports news,local news and cartoons ()

5/Doctors, nurses and teachers are examples of community helpers ()

Who Am I...?

**I am a weekly or daily publication, consisting of folded sheets and containing articles on news, advertisements
(.....)**

Complete the following sentences using the words below (media _ reporters _ headline)

1/The means of communication with others on a large scale are called.....

2/People who write in newspapers are called.....

3/The title of an article in the newspaper is called